

Wide Area Information Servers

Brewster Kahle
Thinking Machines Corporation
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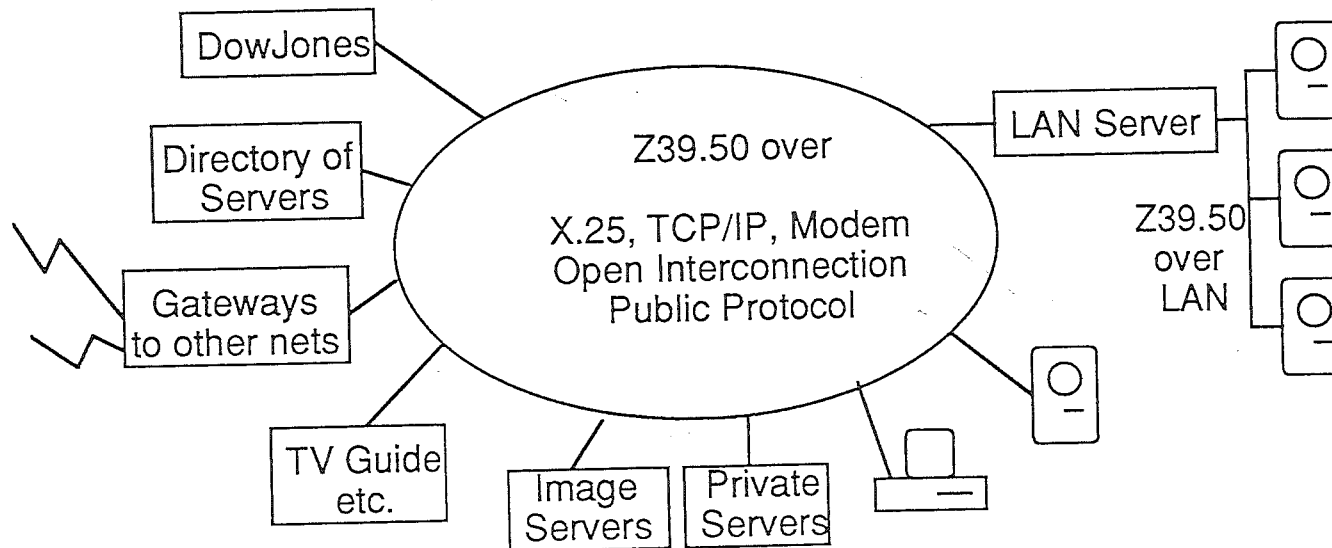
- Goals
- WAIS Architecture
- Proposed Techniques
- Demonstration System Architecture
- Project Structure
- Thinking Machines Plans
- Conclusion

Goals, and where are we?

- **Catalyze a market of Wide Area Information Servers:**
status: This is a long road.
- **Establish open protocol for Information Servers:**
status: done. Z39.50 is catching on. Our changes are being adopted
- **Produce skeleton Producer ---> Consumer system:**
status: done.
- **If the system is useful:**
Move into production at TMC and Dow: *in progress*
Transfer technology to Apple Products Division: *maybe*
Evangelize third parties to write Mac software: *starting*
- **Find out what is missing from our system:**
status: lets pull it together

WAIS

Wide Area Information Server Architecture



Users Problems:
Selecting Servers
Answering Questions
Organizing Responses

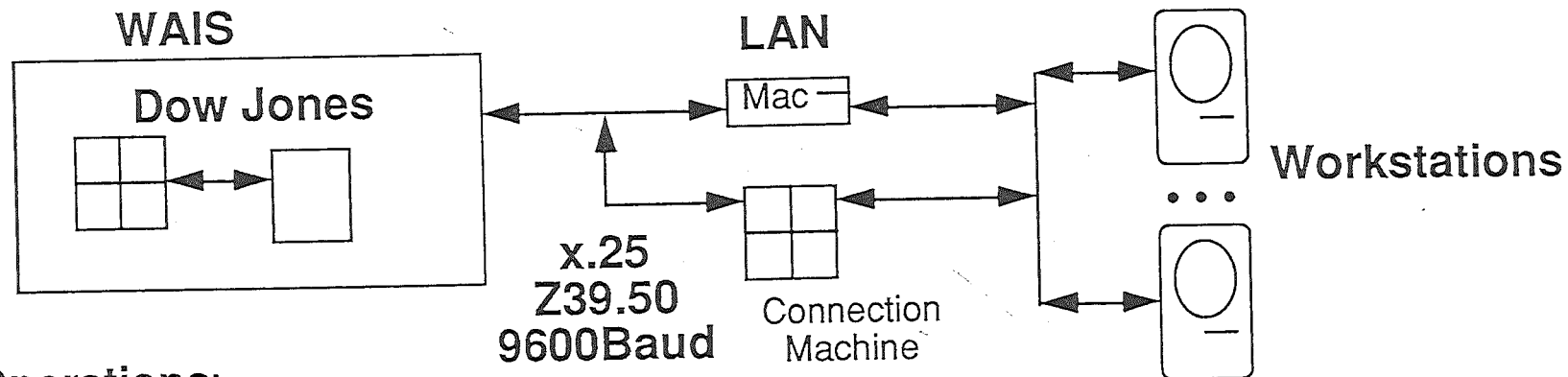
Architecture Issues:
Scalability
Security
Business model for servers
Reliable Access

Proposed Techniques

- **English Questions yield "headlines" to guide retrieval; Query by example:**
status: Done. Needs refinement
- **Dynamic folders hold responses and will work at night:** *status: never really worked.*
- **Directory of Servers can be questioned like any other server:** *status: just coming up now*
- **Copy Editors help select important information:**
status: not implemented.
- **Single Computer-to-Computer Protocol:** *status: works*
- **Create small system to evaluate the design:** *status: done*

WAIS

Demonstration System Structure



Operations:

Archiving
Queries
Retrieval

IR Type:

Broadcast
Query by Example

Databases:

Wall St Journal
Barron's
400 Business Mags

Mac:

Operations: Archiving
Queries
Retrieval

IR Type: Query by Example

DBs: Mail, Netnews
Encyclopedias
DowVision

CM: Operations: Queries

IR Type:

enhanced relevance feedback

DBs: DowVision and memo's

Mac:

Operations:
Human Int
Retrieval

Queries
"Caching" Docs
User Profiles

IR Type:

Query by example

DBs:

Personal Text
Cached data

* *italics means not done yet*

WAIS

Project Structure

WAIS

Dow Jones
Clare Hart

Thinking Machines
Brewster Kahle

Apple
Charlie Bedard

Peat Marwick
Robin Palmer

10/89

5/90

8/90

12/90

3/91

?

Start

Start
Integration

First
Installation

Report

Now

External
Products

Apple/Thinking Machines/Dow Jones/Peat Marwick

Thinking Machines Plans

- Index larger amounts of data
- Better retrieval on business information
- Support the protocol library at least through 1991
- Minimize effort on user interfaces
- Support a directory of servers through 1991

Internet Release

- CM product for TCP/IP (complete server)
- Example User interfaces for free (no support)
Macintosh
Gnu Emacs
Xwindows
- Example unix server software to create servers:
(no support)
- Directory of Servers on the internet at least through '91
- Alpha release 3/91, Beta 5/91

Conclusion

- We succeeded beyond our expectations with our prototype: We have built what we set out to.
- The users and the technology seem ready for a set of products in this area.
- What are our plans for the future?